

POSITION DESCRIPTION

IS Systems Development Services Specialist

Bureau of Information Technology – Division of Management Services

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Position Summary

This position functions as a Systems Developer within the Division of Management Services (DMS), Bureau of Information Technology Services (BITS), and Technical and Application Services (TAS) Section. This position operates under the general direction of the Applications Services Section Chief. This position may work as a team leader directing the work of others, or as a member of a development team led by another staff person.

The position provides advanced technical support services involving the analysis, development and implementation of enterprise wide management information systems solutions in support of the business functions of the Department of Agriculture, Trade, and Consumer Protection (DATCP). This position works with customers, management and staff to identify and define application and business needs, and is responsible for development of existing and new IT projects and major enhancement efforts through all phases of the development lifecycle. Project efforts may be large and complex requiring distinct multi-phase development efforts and/or multi-contract projects with possibly concurrent development efforts.

This position prepares estimates and work plans, conducts feasibility studies, develops system proposals, conducts presentations and prepares formal deliverables related to systems development efforts and enhancements. This position is responsible for systems analysis; high-level and detailed design; functional specifications; coding; testing efforts; conversion and implementation efforts; technical documentation; and training related to large, complex intranet, internet, and n-tier systems.

This position provides support for existing customer applications, including the provision of expert advice to division personnel and assistance and leadership to other technical staff in the work unit.

Goals and Worker Activities

55% A. Performance of high-level development of solutions and web applications that will support complex multi-platform systems to meet agency business needs.

- A1. Analyze, Code, test and document highly complex applications and processes and/or revise existing applications and processes utilizing a variety of programming languages and tools.
- A2. Develop and present system design proposals and recommendations including alternatives for meeting the business requirements. Formal proposals will generally include feasibility study results, cost/benefit

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analysis, high-level functional designs, and initial resource estimates as defined in the DATCP Systems Development Methodology.

- A3. Develop detailed design and code specifications from functional specifications as defined in the DATCP Systems Development Methodology.
- A4. Review system proposals for continuity with agency models and goals; identify potential impact on current DATCP resources, operating policies, and technical standards; report areas of concern and/or recommendations for change to IT and customer management.
- A5. Monitor and troubleshoot production systems. Provide on-call or emergency diagnosis of system problems and complete complex system repairs.

35% B. Participate in the full life cycle of an implementation and provide expertise in meeting agency needs and goals.

- B1. Lead and/or participate in technical product review sessions to improve IT deliverables, and ensure compliance with DATCP technical standards and development methodology.
- B2. Develop conversion and/or implementation plans identifying resource requirements, one-time start-up tasks, contingency plans, on-going processing and technical requirements, and customer training needs as it pertains to new and/or re-engineered functionality.
- B3. Conduct post implementation reviews with customers to determine if the operational system meets the originally specified objectives and requirements, and to assess areas of overall process improvement by identifying “lessons learned”.
- B4. Develop and maintain technical documentation, including logic models, data dictionaries, database models, network diagrams, business and technical flowcharts, and object libraries used to support application development efforts and define the technical infrastructure.
- B5. Actively participate in the identification, creation and implementation of IT standards, procedures and tools for project deliverables, including systems documentation, code, reusable modules, functions and objects across DATCP applications.

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5% C. Participation in Employee Development Activities

- C1. Consult with other IT professionals regarding project efforts and the techniques and tools used to increase efficiency, effectiveness, and communications.
- C2. Read books and periodicals to improve knowledge of information technology direction, project management and working tools. Attend schools, training sessions, conferences, and workshops.

5% D. Participation in Organizational Activities and Projects

- D1. Read and discuss pertinent materials to maintain awareness of BITS operating procedures and technical environment.
- D2. Support and propose technical, operating, and organizational standards to contribute to the overall effectiveness of BITS.
- D3. Carry out special assignments to respond to the needs of BITS and the department. Prepare special reports, reviews, and recommendations as requested.
- D4. Share knowledge with fellow IT professionals and provide assistance in areas of personal expertise. Tutor and train team members and new staff.

Knowledge, Skills and Abilities

- 1. Knowledge of and desired experience with .NET applications development, preferably using the visual basic language (VB.NET) or C# language
- 2. Knowledge of and work experience using and creating web services.
- 3. Knowledge of Web Development using HTML5, CSS3, XML, JavaScript, AJAX, JSON, Bootstrap and Web development tools
- 4. Knowledge of and experience with scripting languages (Preferably JavaScript or Python)
- 5. Knowledge and work experience using test driven code development methodologies
- 6. Knowledge of information technology methodologies, analysis and design techniques, business processing redefinition, and program development techniques and documentation

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7. Knowledge of and work experience with application development techniques like prototyping, RAD, AGILE, or waterfall application development
8. Working knowledge of Data Dictionary/Repository concepts and procedures
9. Knowledge and abilities in program design specifications
10. Knowledge of and work experience with Microsoft Dynamics CRM.
11. Working knowledge of relational data base management systems
12. Knowledge of and experience writing and working with SQL queries, Stored Procedures, and/or Functions (T-SQL, MySQL, MS Access, Etc.)`
13. Knowledge of and experience with MS-SQL 2010 or Greater.
14. Knowledge of and experience with data modeling/entity modeling and process/event modeling using tools like Erwin, Optimal Trace, Caliber, or Visio
15. Knowledge of and experience in statistics (SAS, R, SPSS, Stata)
16. Knowledge and experience developing reports (Microsoft SSRS, Power BI)
17. Knowledge of and experience with project management, project estimation, work plan preparation, and project change control
18. Ability to independently work with a project management methodology and manage an IT project to a successful outcome as defined jointly with the customers
19. Interview skills, abilities which facilitate working with customer areas to identify business area requirements
20. Ability to establish and maintain effective working relationships with agency customers
21. Knowledge of information processing systems structures and organization
22. Knowledge of Emerging Technologies
23. Strong problem solving skills, knowledge and experience in problem resolution
24. Effective oral and written communications
25. Effective organization, planning and status reporting skills and techniques
26. Self-starter